

Design:

4-way solenoid valve, internally piloted, in the de-energized condition port P connected to port B and port R connected to port A. With manual override and flow restrictors.

Seal Materials and Fluids handled:

See Table1.

Fluid and Ambient Temperature:

For Hazardous Locations Div. 1 (T6 rated)

Max. Ambient Temperature 104 °F (40 °C)

Max. Fluid Temperature 140 °F (60 °C)

For Hazardous Locations Div. 2 and Ordinary Locations:

See Table1.

Pressure Range:

Minimum pressure differential between inlet and outlet port is 35 PSI.

Maximum inlet pressure see label on valve.

Installation:

Installation position as required. Ensure exhaust outlets for pilot valve and main valve remain unrestricted but protect against entry of dust, water and foreign matter. Pipework should be clean. Do not put any loads on coil unit. Pipework should be supported and installed to prevent strain on valve body. Fittings should be sealed with PTFE tape, max. torque 80 in-lbs. Mounting is accomplished by means of two M4 self-locking threaded brass inserts located on the valve underside. Maximum thread depth is 6 mm.

Table 1		Seal materials	
Fluid	Temperatures [°F]	Buna "N" (B)	FKM (F)
Air	Fluid T.	+ 14 to + 122	+ 14 to + 122
	Ambient	+ 14 to + 122	+ 14 to + 122
Neutral gas	Fluid T.	+ 14 to + 122	+ 14 to + 122
	Ambient	+ 14 to + 122	+ 14 to + 122

Marking (example):

Body Material

PL = Polyamide Plastic

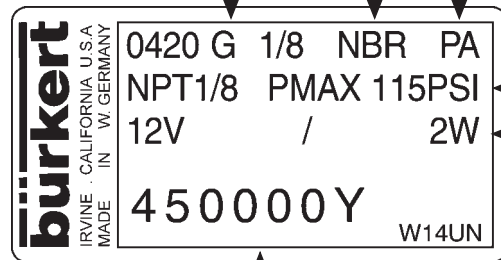
Seal Material

NBR = NBR

FKM = FKM

Circuit Function

G = 4-way



Recorder No.

Voltage / Frequency / Power Consumption

Maximum Pressure

Approvals

The valve is either approved as

General Purpose valve for Hazardous Locations

Class I, Division 1, Group A, B, C, D

Class II, Division 1, Group E, F, G

Class III, Division 1 and 2

Operating Temperature T 4

or

General Purpose valve for Hazardous Locations

Class I, Division 1, Group A, B, C, D

Class II, Division 1, Group E, F, G

Class III, Division 1 and 2

Operating Temperature T 6

or

FM approved as

Nonincendive for Hazardous Locations

Class I, Division 2, Group A, B, C, D

Class II, Division 2, Group F, G

Class III, Division 1 and 2

Operating Temperature T 4A

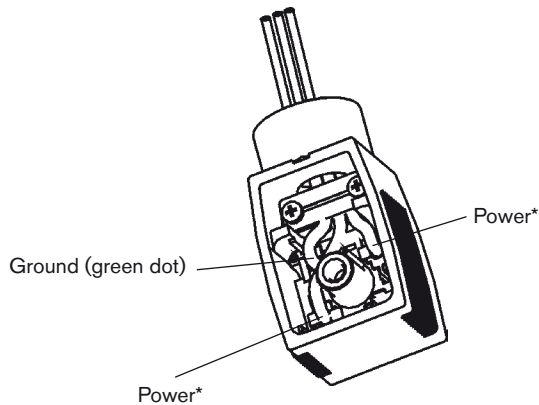
UL listed for Ordinary locations

CSA approved for Ordinary locations

See label on the valve.

Wiring Diagram

Electrical Connection Type 2509



* Orientation is not important

Electrical Connection:

Ensure supply voltage/frequency corresponds with that on label.
Voltage tolerance is $\pm 10\%$.
Available Electrical Connections see "Marking".
Wiring diagram see above.

For this product to be considered UL-listed and CSA approved for General Purpose and FM approved for Hazardous Locations Division 2, it must be in conjunction with the type 2509 cable plug connector (Electrically Operated Valves Parts, YSY12).
The connector and gasket must be assembled to the valve with the screw provided after the connection of the wire leads. This valve and connector assembly is delivered together and is to be used as one unit.

For valves to be used in Intrinsically Safe Applications the positive pole is identified by a "+" on the pin or wire No. 1 has to be connected to the "+".
See Control Drawing for the Rules of Interconnection.

Warning:

All valves to be used in Intrinsically Safe Applications must be clearly marked as Intrinsically Safe Apparatus.

Trouble-Shooting:

Check port connections, minimum operating pressure differential if required and supply voltage. Ensure pilot hole in piston is clear and pilot bore in the valve outlet is not obstructed. If core does not pull in, check for short circuit, coil burn-out or foreign matter impeding core movement. A jammed or missing core causes the coil to overheat in the case of AC supply.

Warning:

These products are designed to operate in a wide variety of applications, it is the user's responsibility to select a model that is appropriate for the application. This product is designed to be installed only by suitably qualified and trained personnel. Specifications should not be exceeded under any circumstances.

The torque for the terminal screw on type 2509 is 0,5 Nm (4,4 lbf-in.).

Changes made to this product will render any applicable warranty null and void.

Specifications subject to change without notice.

Any questions? Please call Bürkert Contromatic Technical Service at (949) 223 31 00.

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